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Factors of an Industrial Design, Types of its Origin and Purpose

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Annotation. Industrial design in the industry appear to be necessary for the artistic, aesthetic, and marketing promotion of products on the market. The demand for professionals with skills and critical evaluation of fact, is the policy priority of the educational system of industrial design.

Keywords: industrial design; design; formation; creative thinking; furniture; aesthetics; marketing; industry; technology; project.

Introduction. Industrial design is a fairly wide range of tasks and responsibilities, it is a holistic perception of the entire design process, from the analysis of potential needs to the disposal of the product. Industrial design aims to create ergonomic products based on current design methods, manufacturing techniques and materials. Industrial design professionals can manage the entire product lifecycle, from user experience to create a human-centric solution, to pre-production and market launch.

The growth of industry in the world and manufactured products in the 19th century accelerated design thought in industrial or industrial design. And by the middle of the 20th century, a breakthrough in industrial design accumulated such areas as marketing. Design became an integral part of art itself, capturing those objects and industries that were not paid attention to before.

For design in general and industrial design in particular, the 20th century became the key to opening the door behind which the world of man and his environment were already ready for aesthetic transformation. The inquisitive, creative thought of the designer gave impetus to the design activity. Already the first draft designs of designers were complex constructive and artistic processes. The very intervention in the industrial environment created special prerequisites for solving the artistic problems of design projects. A dual situation arose in which the designer and designer had to create a logical chain of relationships, even if they did not work together. Almost every item that we have at home, in the car or on the street is an example of one form or another of industrial design.

Design plays an important role in industrial creativity products. The field of industrial design includes household appliances, dishes, furniture, machine tools, vehicles, industrial graphics, clothing, make-up, phytodesign and much more. Designers should participate in the search for the optimal Foma of each element, taking into account how it depends on the working function (purpose) of the product and connections with the person. Many examples can be given showing the need to take into account the proportions of a person, the size of his hand (ergonomic requirements) in the process of designing buttons, control panels, instrument keys, the shape of a cup handle, etc. In the formation of furniture, for example, the use of new materials and designs has recently played a significant role. Tables and chairs that use metal as the main material for construction are more free, spatial organization, the possibility of complex transformations and convenient layout when folded.

Industrial design includes science-intensive and household products, vehicles and interior items. The main task of the designer is to create a functional product oriented to mass production. Serialization is what sets industrial design apart from other areas of design.

Industrial design is closely related to 3D modeling, which has made it possible to simplify the work of creating concepts and prototypes. Visualization of the product helps to look at the industrial product in advance, and the prototype to identify its shortcomings. All industrial design products are subject to a number of technical requirements, including: product ergonomics, high performance, cost-effectiveness, environmental safety and manufacturability. The development of industrial design is inextricably linked with scientific and technological progress. Therefore, products must be developed taking into account the latest developments in the field of development, both new equipment and technologies.

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Methods. This type of industrial design includes devices used in construction, research, scientific research, etc. Engineering devices should help a person at all stages of project implementation - from planning to operation. A great influence on the development of industrial design of vehicles is pressure from environmentalists. This affects the choice of materials and shapes when creating vehicles. The industrial design of transport is being developed, which has a minimal negative impact on the environment (for example, bicycles). By the way, in the Netherlands, a frame for a bicycle was printed using a 3D printer - such a vehicle can withstand heavy loads, and the design is characterized by increased strength.

Recently, the industrial design of automobiles has been closely associated with the development of electric motors. This affects both the interior of the car and its appearance. In addition, changes in the use of energy are leading to a rethinking of the very attitude towards vehicles. Industrial designers should also consider this.

A large direction in industrial design is formed by devices for the care of clothes (washing machine), home (vacuum cleaner), appearance (hair dryer) and for regulating the microclimate (heater). Together they make up a significant group of devices for high-volume production. A high degree of differentiation of devices with the same functionality for different target groups plays a significant role here.

Results. The directions of creating smart household robots are actively developing: for cleaning the house and swimming pools, washing windows, agricultural purposes (sheep shearing, weeding, harvesting).

Industrial interior design should provide high ergonomics for office and home furniture. Also, design solutions must be energy efficient. Since interior items surround a person most of the time, industrial designers must choose materials that are safe for humans. In higher education institutions and in educational courses, future industrial designers are taught how to create things that are more convenient, beautiful, practical and safe. Most often, these specialists choose for themselves one or more similar areas, although you can work with different subjects if you have the time and desire to learn. Direct industrial modeling consists of several stages:

- discussion of the project with the customer;
- careful study of existing products and all available information about them (3D models, technical documentation, drawings);
- development of the concept and its transfer to the sketch format;
- after that, the specialist must select the necessary materials and technologies to create the product;
- creation of a 3D model;
- if the customer approves the model, then the process of prototyping and testing begins;
- in the absence of problems, refinement, re-testing and launch of the improved product / service into production are carried out. During these processes, the industrial designer works closely with the engineers, marketers, chemists, biologists, and other professionals who are involved in the project.

The main goal of the work is to create an improved product that will enjoy consumer interest. It must also be functional, safe and cost-effective.

Bibliography:

1. История и теория дизайна. Любовь Смирнова, 2014
2. Dizayn tarixi. O‘quv qo‘llanma. Zuparova.D.D., Karimova.N.N. Toshkent-2014.
3. Бодрийяр Ж. Система вещей. — М.: Издательство “РУДОМИНО” МОСКВА, 2001 г.
4. Юлдашова Нодира Изатуллаевна. Journal of Advanced Research and Stability. Бионические принципы в транспортной индустрии. http://sciencebox.uz/index.php/jars/article/view/1024/956
5. Рахманов Жахонгир Мамашарибович. "ДИЗАЙН И ИНТЕГРАЦИОННОЕ РАЗВИТИЕ ОБЩЕСТВЕННОГО ТРАНСПОРТНОГО СРЕДСТВА" Academy, no. 12 (63), 2020, pp. 88-90. №12.https://cyberleninka.ru/article/n/dizayn-i-integratsionnoe-razvitie-bschestvennogo-transportnogo-sredstva/viewer
6. Рахманов Ж. М. Концепция развития рекламного искусства //Наука, образование и культура. – 2020. – №. 6 (50). – С. 80-83. https://cyberleninka.ru/article/n/kontseptsiya-razvitiya-reklamnogo-iskusstva/viewer.

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7. Raxmanov Jaxongir Mamasharibovich. Zamonaviy Mebel Dizayn Turlari Va Ularning Tasniflanishi. Journal of Advanced Research and Stability. Vol. 2 №1.2022. http://www.sciencebox.uz/index.php/jars/article/view/702
8. https://advengineering.ru/ru/inginiringovy-centr/promyshlennyj-dizajn/obschestvennogo ransportnogo-sredstva.
9. https://cyberleninka.ru/article/n/promyshlennyy-dizayn-rol-i-zadachi-v-sovremennom-mire-i-sisteme-obrazovaniya
10. https://www.marya.ru/kuhni-sovety/promdesign.
11. https://klona.ua/blog/promyshlennyy-dizayn/vidy-promyshlennogo-dizayna-ot-sharikovoy-ruchki-do-kosmicheskogo-shattla.